IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ant(s):

Serial No.: 10/579,090

Examiner: :

Unknown

Duncan C. Ferguson

Docket No.:

235.00540101

Filed:

12 May 2006

Confirmation No.: 5257

Group Art Unit: 1761

Title:

DNA SEQUENCE AND EXPRESSED RECOMBINANT GLYCOPROTEINS RELATED TO FELINE

THYROTROPIN

Mail Stop AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

We are transmitting the following documents along with this Transmittal Sheet (which is submitted in triplicate):

X	Small entity status is entitled to be asserted in the above-identified application.
<u>X</u> <u>X</u>	An itemized return postcard.
	A Petition for Extension of Time for _ month(s). Please charge Deposit Account No. 13-4895 in the
	amount of \$_ for the required fee.
X	An Information Disclosure Statement (2 pgs); 1449 forms (4 pgs); and copies of 20 documents
	cited on the 1449 forms.
_	A check in the amount of \$, representing
	A certified copy of a application, Serial No, filed, the right of priority of which is claimed
	under 35 U.S.C. §119.
	Amendment No Additional fee is required The fee has been calculated as shown:

	Fee Calc	ulation for Claims	Pending After Am	endment	
	Pending Claims after Amendment (1)	Claims Paid for Earlier (2)	Number of Additional Claims (1-2)	Cost per Additional Claim	Additional Fees Required
Total Claims				x \$25 =	
Independent Claims				x \$100 =	
One or M	Nore New Multiple I	Dependent Claims P	resented? If Yes, A	Add \$180 Here →	
		T	otal Additional Cla	im Fees Required	

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 13-4895. Triplicate copies of this sheet are enclosed.

CERTIFICATE UNDER 37 C.F.R. §1.8: The undersigned hereby certifies that this Transmittal Letter and the paper(s), as described hereinabove, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 29th day of December, 2006.

MUETING, RAASCH & GEBHARDT, P.A.

Customer Number: 26813

Name. Kathleen L. Frankin

Reg. No.: 47,574

Direct Dial: 612-305-1873 Facsimile: 612-305-1228



HE UNITED STATES PATENT AND TRADEMARK OFFICE

Duncan C. Ferguson)	Group Art Unit:	1761
•)	Examiner:	Unknown
No.: 5257)		
12 May 2006)		
~			COPROTEINS
	SEQUENCE AND EXPRI) 10/579,090) No.: 5257) 12 May 2006) SEQUENCE AND EXPRESSED R) 10/579,090) Examiner: No.: 5257)

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with C.F.R. §§ 1.97 *et. seq.*, the materials enclosed herewith are brought to the attention of the Examiner as possibly being of interest in connection with the above-identified patent application. Pursuant to MPEP § 609, the information cited in the present Information Disclosure Statement shall not be construed to be an admission that the information is, or is considered to be, material to patentability. Consideration of each of the documents listed on the attached 1449 form(s) is respectfully requested. Pursuant to the provisions of M.P.E.P. §609, Applicant further requests that a copy of the 1449 form(s), marked as being considered and initialed by the Examiner, be returned with the next Official Communication.

It is believed that no fee is due, as this Information Disclosure Statement is filed prior to the receipt of any Action on the merits. However, in the event a fee is due, please charge any fee or credit any overpayment to Account No. 13-4895.

Information Disclosure Statement

Applicant(s): Duncan C. Ferguson

Serial No.: 10/579,090 Confirmation No.: 5257 Filed: 12 May 2006

For: DNA SEQUENCE AND EXPRESSED RECOMBINANT GLYCOPROTEINS RELATED TO FELINE

THYROTROPIN

The Examiner is invited to contact Applicant's Representatives at the below-listed telephone number, if they can be of any assistance during prosecution of the present application.

CERTIFICATE UNDER 37 C.F.R. 1.8:

The undersigned hereby certifies that this paper is being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, 'Alexandria, VA 22313-1450, on this 29th day of December, 2006.

Respectfully submitted

By

Mueting, Raasch & Gebhardt, P.A.

P.O. Box 581415

Minneapolis, MN 55458-1415

Phone: (612)305-1220 Facsimile: (612)305-1228 **Customer Number 26813**

Kathleen L. Franklin

Reg. No. 47,574

Direct Dial (612)305-1873

INFORMATION DISCLOSURE STATEMENT

Atty. Docket No.: 235.00540101	Serial No.: 10/579,090
Applicant(s): Duncan C. Ferguson	Confirmation No.: 5257
Application Filing Date: May 12, 2006	Group: 1761
Information Disclosure Statement mailed:	December 29, 2006

4 \	AIENIE	/1 7 I	Applicati	on Filing Da	nte: May 12, 2006	Group	: 1761	
007 B	007 🕏		Informatio	on Disclosure	e Statement mailed:	December 29, 2006		006
OUT CONTROL		•						
WEAR.			U.S	S. PATENT	DOCUMENTS			
Examiner Initial	Copy Enclosed	Docum	ent Number	Date	Name	Class	Subclass	Filing Date Appropria
		4,036,9	45	07/19/77	Haber			
		4,331,6	47	05/25/82	Goldenberg			
		5,196,5	13	03/23/83	Ryan et al.			
		5,560,9	22	10/01/96	Chien et al.		·	
		5,788,9	83	08/04/98	Chien et al.			
		5,840,5	66	11/24/98	Kourides et al.			
		6,114,1	44	09/05/00	Kourides et al.			
		6,117,9	91	09/12/00	Wondisford et al.			
		6,284,49	91	09/04/01	Wondisford et al.			
		6,306,4	34	10/23/01	Hong et al.			
,		6,342,22	21	01/29/02	Thorpe et al.			
		6,365,12	27	04/02/02	Kourides et al.			
		6,365,14	46	04/02/02	Uhrich			
		2001/00	053538 A1	12/20/01	Wondisford et al.			
		2003/01	98596 A1	10/23/03	Kourides et al.			
		2004/01	32137 A1	07/08/04	Wondisford et al.			
		2006/01	48005 A1	07/06/06	Wondisford et al.			

FOREIGN PATENT DOCUMENTS

Examiner	Сору	Document Number	Date	Country	Class	Subclass	Translation	
Initial	Enclosed						Yes	No
	X	EP 0 228 604 A2, A3	07/15/87	ЕРО				
	X	WO 90/08528 A1	08/09/90	WIPO				
	X	WO 2005/047319 A1	05/26/05	WIPO				

EXAMINER	Date Considered
*Evaminary Initial if citation considered subother a	not citation is in conformance with MPEP 609. Draw line through citation if not in

conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION
DISCLOSURE
STATEMENT

Atty. Docket No.: 235.00540101	Serial No.: 10/579,090		
Applicant(s): Duncan C. Ferguson	Confirmation No.: 5257		
Application Filing Date: May 12, 2006	Group: 1761		
Information Disclosure Statement mailed:	December 29, 2006		

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner	Сору	DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.) Document Description
Initial	Enclosed	·
	Х	Bruyette, "Feline Hyperthyroidism," World Congress [online]. World Small Animal Veterinary Association World Congress, Vancouver, BC, Canada, August 8-11, 2001 [retrieved on 2003-11-05]. Retrieved from the Internet: <url:www.vin.com 107.htm="" pr00="" pr05000="" proceedings="" searchpb="" vindbpub="">; 5 pgs.</url:www.vin.com>
	X	Huysmans et al., "Administration of a Single Low Dose of Recombinant Human Thyrotropin Significantly Enhances Thyroid Radioiodide Uptake in Nontoxic Nodular Goiter," <i>The Journal of Clinical Endocrinology & Metabolism</i> , Oct. 2000; 85(10):3592-3596.
	X	Narayan et al., "Functional Expression of Yoked Human Chorionic Gonadotropin in Baculovirus-Infected Insect Cells," <i>Molecular Endocrinology</i> , Dec. 1995; 9(12):1720-1726.
	X	National Center for Biotechnology Information, GenBank Locus AF160250, Accession No. AF160250, "Canis familiaris thyrotropin alpha subunit mRNA, complete cds." [online] Bethesda, MD [retrieved on 2006-10-02]. Retrieved from Internet: http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=53 60187>; 2 pages.
	X	National Center for Biotechnology Information, GenBank Locus AF354939, Accession No. AF354939, "Panthera tigris altaica glycoprotein hormone alpha subunit (GPH) mRNA, complete cds." [online] Bethesda, MD [retrieved on 2006-10-02]. Retrieved from the Internet: http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=13561973 >; 2 pages.
	Х	National Center for Biotechnology Information, GenBank Locus AF408393, Accession No. AF408393, "Panthera tigris altaica glycoprotein hormone alpha subunit precursor, mRNA, complete cds." [online] Bethesda, MD [retrieved on 2006-10-03]. Retrieved from the Internet: http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=22535904 >; 2 pages.

EXAMINER	Date Considered

^{*}Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

OMB No. 0651-0011 Page 3 of 4

INFORMATION DISCLOSURE STATEMENT

Atty. Docket No.: 235.00540101	Serial No.: 10/579,090		
Applicant(s): Duncan C. Ferguson	Confirmation No.: 5257		
Application Filing Date: May 12, 2006	Group: 1761		
Information Disclosure Statement mailed:	December 29, 2006		

Examiner Initial	Copy Enclosed	Document Description	
	X	National Center for Biotechnology Information, GenBank Locus AY972823, Accession No. AY972823, "Felis catus thyrotropin alpha mRNA, complete cds." [online] Bethesda, MD [retrieved on 2006-10-02]. Retrieved from the Internet: http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=62530408 ; 2 pages.	
	Х	National Center for Biotechnology Information, GenBank Locus AY972824, Accession No. AY972824, "Felis catus thyrotropin beta (TSHB) gene, complete cds." [online] Bethesda, MD [retrieved on 2006-10-02]. Retrieved from the Internet: http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=62530410 >; 2 pages.	
	X	National Center for Biotechnology Information, GenBank Locus P54828, Accession No. P54828, "Thyrotropin beta chain precursor (Thyroid-stimulating hormone beta subunit) (TSH-beta) (TSH-B)." [online] Bethesda, MD [retrieved on 2006-10-02]. Retrieved from the Internet: http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=protein&val=1717805 ; 3 pages.	
	Х	National Center for Biotechnology Information, GenBank Locus Q9SXW8, Accession No. Q9SXW8, "Chlorophyll a/b-binding protein." [online] Bethesda, MD [retrieved on 2006-10-02]. Retrieved from the Internet: http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=protein&val=7526683 ; 2 pages.	
	X	National Center for Biotechnology Information, GenBank Locus CFU51644, Accession No. U51644, "Canis familiaris thyrotropin beta chain mRNA, complete cds." [online] Bethesda, MD [retrieved on 2006-10-02]. Retrieved from the Internet: http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=1263292 ; 2 pages.	
	Х	Nguyen et al., "Cloning of the Cat TSH Receptor and Evidence Against an Autoimmune Etiology of Feline Hyperthyroidism," <i>Endocrinology</i> , 2002; 143(2):395-402.	

EXAMINER	Date Considered

^{*}Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

OMB No. 0651-0011
Page 4 of 4

INFORMATION DISCLOSURE STATEMENT

Atty. Docket No.: 235.00540101	Serial No.: 10/579,090	
Applicant(s): Duncan C. Ferguson	Confirmation No.: 5257	
Application Filing Date: May 12, 2006	Group: 1761	
Information Disclosure Statement mailed:	December 29, 2006	

Examiner Initial	Copy Enclosed	Document Description	
	Х	Rayalam et al., "Recombinant Feline Thyrotropin (fTSH): Immunological Detection and Bioactivity," Abstract, Fifth Annual Georgia Graduate Student Interdisciplinary Conference, February 11-12, 2005; University of Georgia, Athens, GA, title page, Table of Contents, partial schedule for Saturday, Feb. 12, and page 20.	
	X	Rayalam et al., "Cloning and sequencing of feline thyrotropin (fTSH): Heterodimeric and yoked constructs," Abstract, Proceedings of the 23 rd Veterinary Medical Forum, American College of Veterinary Internal Medicine, Baltimore, MD; June 1-4, 2005.	
	X	Rayalam et al., "Expression and purification of feline thyrotropin (fTSH): Immunological detection and bioactivity of heterodimeric and yoked glycoproteins," Abstract, Proceedings of the 23 rd Veterinary Medical Forum, American College of Veterinary Internal Medicine, Baltimore, MD; June 1-4, 2005.	
	X	Rayalam et al., "Cloning and sequencing of feline thyrotropin (fTSH): Heterodimeric and yoked constructs," <i>Domestic Animal Endocrinology</i> , March 2006; <i>30</i> :203-217. Published on-line August 9, 2005.	
	X	Rayalam et al., "Expression and purification of feline thyrotropin (fTSH): Immunological detection and bioactivity of heterodimeric and yoked glycoproteins," <i>Domestic Animal Endocrinology</i> , March 2006; <i>30</i> :185-202. Published on-line August 10, 2005.	

EXAMINER	Date Considered